

REMARKS

By this Amendment, an Abstract is submitted on a separate sheet of paper as required by the Office Action and the pending claims are amended merely to be in further conformance with U.S. practice and a replacement drawing sheet including Figures 4 and 5 is submitted (with a red-line copy showing the changes). No new matter is added by this Amendment. Claims 1-12 are pending.

The Office Action rejected claims 1-5, 7-8 and 10-11 under 35 U.S.C. 102(b) as being anticipated by Sanmugam (WO 96/15643)¹. Additionally, claims 6, 9 and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sanmugam in view of Fletcher et al. (H1,921).

Applicant traverses these rejections because the cited prior art, analyzed individually or in combination, fails to disclose, teach or suggest a method of tracing signalling messages of a subscriber in a mobile communication system which comprises functional entities for subscriber mobility management, the method comprising "copying a signalling message in response to the reception or transmission of a signalling message related to the subscriber to be traced, and sending a copy to the tracer," as recited in independent claim 1 and its dependent claims. Similarly, the cited prior art, analyzed individually or in combination, fails to disclose, teach or suggest a mobile communication system comprising a network element "arranged to copy signaling messages related to the subscriber in response to the trace command and to send a copy to the tracer" as recited in independent claim 7 and its dependent claims. Furthermore, the cited prior art, analyzed individually or in combination, fails to disclose, teach or suggest a network element comprising "copying means for copying the signalling messages related to the subscriber to be traced, and transmission means for sending copies to the tracer" as recited in independent claim 10 and its dependent claims.

The Office Action's analysis is based on the erroneous conclusion that tracing of activities is the same as tracing signaling messages. In fact, one of ordinary skill in the art would recognize that the term "activity" refers to something performed by a subscriber, e.g., a call.

Conventionally, statistical information is stored relating to an activity, such as time of the activity, duration of the activity, location of the subscriber, etc. To the contrary, network

¹ Please note, the Official Action incorrectly refers to the reference number for Einamo; however, the Official Action text clearly indicates that it is referring to Sanmugam.

elements use signaling messages when they communicate with each other to provide and control different functions of the network, i.e., activities. For example, in a GSM system, several signaling messages must be sent to perform an activity such as establishing a call. Signaling messages are also used for mobility management. Signaling messages usually contain a large quantity of information, e.g., during a location update, signaling messages are used to transfer most of the subscriber information from a home location register to a visitor location register.

Thus, by capturing signaling messages, all information relating to establishment of a certain activity is received; this differs and is an improvement over merely compiling statistics on activities, in which case, the only information received is, that an activity took place or failed. For example, by merely storing information on activities, one of ordinary skill in the art cannot solve interoperability problems between two different operators. Information merely indicating that an activity has been attempted cannot be used to determine the reason why the attempt failed. That determination can be made only from signaling messages (relating to the activity in question).

Therefore, tracing of an activity (as in Sanmugam) is fundamentally different than tracing signaling messages (as recited in the claimed invention). Thus, Sanmugam fails to disclose, teach or suggest the claimed method of tracing signalling messages (independent claim 1), the telecommunication system (independent claim 7) and the network element (independent claim 10) that copy a signalling message in response to the reception or transmission of a signalling message related to the subscriber to be traced, and send a copy to a tracer.

Fletcher fails to remedy the above-identified deficiencies of Sanmugam because Fletcher merely teaches on a generic wireless telecommunications system utilizing a MAP protocol interface.

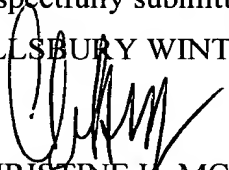
Accordingly, the rejection of claims 1-12 is traversed and those claims are allowable.

All objections and rejections having been addressed, Applicant requests issuance of a notice of allowance indicating the allowability of all pending claims. If anything further is necessary to place the application in condition for allowance, Applicant requests that the Examiner contact Applicant's undersigned representative at the telephone number listed below.

MUHONEN -- 09/719,589
Client/Matter: 060258-0275251

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,
PILLSBURY WINTHROP LLP



CHRISTINE H. MCCARTHY
Reg. No. 41844
Tel. No. (703) 905-2143
Fax No. (703) 905-2500

Date: January 29, 2004
P.O. Box 10500
McLean, VA 22102
(703) 905-2000



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